

# INSULATION MONITORING DEVICE AND INSULATION MONITORING METHOD

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| <b>Inventor:</b>           | TSUTSUMI MANABU        |
| <b>Applicant:</b>          | KAWAMURA ELECTRIC INC  |
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## Abstract of JP2004012147

**<P>PROBLEM TO BE SOLVED:** To provide an insulation monitoring device for satisfactorily monitoring insulation deterioration of electric paths with a simple constitution.

**<P>SOLUTION:** A zero-phase current transformer 1 is provided on a ground line 6 of a cable way 5 while a transformer 4 is provided on the cable way 5. Information on a detected leak current  $I_{\text{SB}} <0>$  and information on a cable way voltage  $V$  are inputted into a microcomputer 3. From the inputted information, the microcomputer 3 finds the effective value  $I_c$  of the leak current  $I_{\text{SB}} <0>$  and a phase angle  $[\phi]$  for the cable way 5 being in good condition, and stores them as data on leak current caused by earth capacitance (data on virtual cancellation current  $I_{\text{gci}}$ ). Thereafter, an insulation deterioration is judged to exist if a set value is exceeded by the effective value of an alternating current obtained by subtracting the sine wave data of the stored current  $I_{\text{gci}}$  from the instantaneous value of the detected leak current  $I_{\text{SB}} > 0$ .

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